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EXAMINER

KOVACEK, DAVID M

ART UNIT	PAPER NUMBER
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2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/772,096

Applicant(s)

SCHMID ET AL.

Examiner

David Kovacek

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-26 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 2,3 and 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-26 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The examiner has considered the amendments to the claims in the instant application and they are accepted. It is further noted that this amendment includes the cancellation of **claims 2-3 and 27-29**. It is further still noted by the examiner that these amendments change the scope of the remaining claims presented in the instant application.

Response to Arguments

2. This Office Action is in response to the Remarks submitted by applicant on 11/05/2007, in which the applicant asserts that the examiner has improperly objected to and rejected to the original version of the instant application.

3. Regarding the applicant's arguments against the objection and rejection under 35 U.S.C. §112, first paragraph of **claim 14** of the instant application, the arguments have been considered and are found to be non-persuasive. Both the objection and rejection have been repeated in the appropriate sections of this Office Action

It is first noted that this objection and rejection are founded upon the examiner's previous assertion that the term `dictation grammar` is ambiguous as used in **claim 14**.

The first usage of *dictation grammar* in the art at the time the instant invention was made includes a grammar providing a limited set of anticipated input phrases of natural language speech. An example of this usage of the term in the art can be found in US Patent 6,064,959 hereinafter referred to as Young. Young's usage of *dictation grammar* includes a large vocabulary of all known and acceptable input words of a speech recognition system (Col. 5, lines 56-67).

The second usage of *dictation grammar* in the art at the time the instant invention was made includes a grammar providing language rules for processing input phrases of natural language speech that are not anticipated. An example of this usage of the term in the art can be found in US Patent Application Publication 2002/0123876 hereinafter referred to as Pokhariyal. Pkhariyal's usage of *dictation grammar* includes a grammar supporting rules capable of supporting arbitrary phoneme combinations unfamiliar to a speech processor (Page 1, paragraphs 0009-0010, 0019).

The examiner contends that these definitions are mutually exclusive because the former definition is directed to a limited dictionary of words, and the latter definition is directed to words specifically not included in a separate limited dictionary of words.

Neither the contents of **claim 14**, nor the contents of the specification appropriately resolve this ambiguity. Furthermore, the applicant additionally admits this ambiguity on page 7 of the submitted Remarks, in asserting that the term "*dictation grammar*" is broad enough to include both a grammar that can recognize anticipated speech, and one that can recognize unanticipated speech," but does not provide any rationale regarding how these two distinct definitions may be considered simultaneously.

Because of this ambiguity in terms, one of ordinary skill in the art is not enabled to make and use the same invention as claimed. Similarly, the individual interpretation of the term amongst those of ordinary skill in the art would differentiate such that it would be unclear that the inventor had possession of the invention as claimed for the simple reason that it is unclear what that invention requires from the submitted application.

4. Applicant's arguments with respect to claims **1**, **4-26** and **30** of the instant application have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection have been provided in the appropriate sections of this Office Action.

It is further noted by the examiner that the applicant did not address the rejection of **claims 1** and **26** of the instant application based upon the disclosure of Fujimori (US Patent Application Publication 2002/0010588), disclosed in the previous Office Action. These claims have been amended with narrower scope, the examiner contends that this rejection is still proper and therefore is maintained. A full explanation regarding this rejection will be provided in the relevant sections of this Office Action.

Claim Objections

5. **Claim 6** is objected to because of the following informalities:

- **Claim 6** should be corrected to read, "...wherein the speech-related members and non-speech related members are [all] designed to be specified and invoked in a consistent way."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. **Claim 14** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

One of ordinary skill in the art could reasonably interpret "dictation grammar" to mean either "a grammar relating to anticipated dictation speech" or "a grammar created to accommodate unanticipated dictation speech." This ambiguity is not appropriately resolved in **claim 14**, nor in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. **Claims 1 and 26** are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimori (US Patent Application Publication 2002/0010588), cited in the previous Office Action.

Regarding **claim 1**, Fujimori discloses a compute readable medium having stored thereon instructions comprising:

- a managed code layer [distributed object model] having a speech-related object model comprising objects exposing (Page 3, paragraphs 0033, 0037)
- speech-related members for use by speech-related applications, comprising one or more of speech recognition enabled applications and speech synthesis enabled applications, in performing speech processing tasks, comprising one or more of speech recognition and speech synthesis (Page 3, paragraphs 0032-0034);

- wherein the managed code layer also includes a non-speech related object model comprising objects exposing non-speech related members for use by applications to perform non-speech related processing tasks [human-machine interface; sound input and output] (Page 3, paragraphs 0032-0034; Page 6, paragraph 0074); and
- wherein the speech-related object model and non-speech related object model are accessed using accessing techniques that are the same for both object models [service nodes] (Page 3, paragraphs 0032-0034).

Regarding **claim 26**, Fujimori discloses an object model comprising:

- a set of speech-related objects exposing members, accessible by applications that target managed code to perform speech-related tasks wherein the exposed members are accessible to perform at least one of speech recognition tasks and speech synthesis tasks (Page 3, paragraph 0032-0034),
- and wherein the exposed members are accessible using techniques that are the same as techniques used to access members exposed by non-speech related objects

in a platform that contains the speech-related objects
[service nodes] (Page 3, paragraphs 0032-0034).

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. **Claims 1 and 4-7 and 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen (US Patent Application Publication 2003/0018476), cited in the previous Office Action, in view of Fujimori.

Regarding **claim 1**, Yuen discloses a computer readable medium having stored thereon computer readable instructions comprising:

- a managed code layer [editable object model] having a speech-related object model [voice application] comprising objects exposing (Page 2, paragraphs 0017-0018)
- wherein the managed code layer also includes a non-speech related object model comprising objects exposing non-speech related members for use by applications to perform non-speech related processing tasks [software application for Web access, editing structure of object model] (Page 2, paragraphs 0017-0018);

However, Yuen does not adequately disclose that the methods of accessing the exposed object models is the same for both speech-related and non-speech-related objects, nor that the speech-related objects are directed to speech synthesis or speech recognition.

Fujimori discloses a computer readable medium having stored thereon instructions comprising:

- speech-related members for use by speech-related applications, comprising one or more of speech recognition enabled applications and speech synthesis enabled applications, in performing speech processing tasks, comprising one or more of speech recognition and speech synthesis (Page 3, paragraphs 0032-0034);
- wherein the speech-related object model and non-speech related object model are accessed using accessing techniques that are the same for both object models [service nodes] (Page 3, paragraphs 0032-0034).

The two references are combinable because each is directed to a managed code layer that is directed to speech processing. Fujimori further provides motivation to combine in disclosing the utility of the distributed object model in a speech system for the purpose of reducing total cost of the system and ensuring the same feeling of manipulation between different devices by the user by implementing a universal access technique (Page 3, paragraph 0032).

Therefore, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Yuen using the teachings of Fujimori in order to implement a speech processing system that utilizes a managed code layer using the distributed object model in order to reduce total cost of the system and to ensure the same feeling of manipulation between different devices within the system.

Regarding **claim 4**, Yuen in view of Fujimori discloses all limitations of **claim 1** as applied above, and Fujimori further provides examples of a non-speech related object that includes methods [conversion, display], properties acted upon by the methods [processing of information resources], and events triggered by a state of the non-speech related object [coding, conversion] (Fig. 2, elements 230,240,250; Page 5, paragraphs 0069-0071).

The reasons for combining this limitation of Fujimori to the existing combination of Yuen in view of Fujimori are the same as those as applied above to **claim 1**.

Regarding **claim 5**, Yuen in view of Fujimori discloses all limitations of **claim 4** as applied above, and Fujimori further provides examples of a speech-related object that includes methods [speech recognition, decoding], properties acted upon by the methods [processing of information resources], and events triggered by a state of the speech-related object [coding, conversion] (Fig. 3, elements 304, 305, 340, 350; Page 6, paragraphs 0073-0075).

The reasons for combining this limitation of Fujimori to the existing combination of Yuen in view of Fujimori are the same as those as applied above to **claim 4**.

Regarding **claim 6**, Yuen in view of Fujimori discloses all limitations of **claim 5** as applied above, and Fujimori further discloses speech-related members and non-speech related members are designed to be specified and invoked in a consistent way [service nodes] (Fig. 2; Fig. 3; Page 3, paragraph 0033; Page 6, paragraph 0075).

It is noted by the examiner that this limitation is very similar to the final limitation of **claim 1** and the motivation to combine it with the existing combination of Yuen in view of Fujimori is the same as applied above to **claim 1**.

Regarding **claim 7**, Yuen in view of Fujimori discloses all limitations of **claim 1** as applied above, and Yuen additionally discloses an object configured to represent a speech recognizer (Fig. 1A-1B, item 132; page 1, paragraph 0009; page 3, paragraph 0042).

Regarding **claim 19**, Yuen in view of Fujimori teaches all limitations of **claim 1** as applied above, and Yuen additionally discloses an object configured to represent a speech synthesizer (Page 1, paragraph 0006; page 1, paragraph 0012; page 4, paragraph 0051). It is noted by the examiner that "speech synthesizer" is synonymous with "speech rendering engine."

Regarding **claim 20**, Yuen in view of Fujimori teaches all limitations of **claim 19** as applied above, and Yuen additionally discloses members of a voice object accessible for synchronous speak operations (Page 6, paragraph 0077) and non-synchronous speak operations (Page 6, paragraph 0076).

11. **Claims 8-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Fujimori and in further view of Lewin (US Patent 6,513,010), cited in the previous Office Action.

Regarding **claim 8**, Yuen in view of Fujimori teaches all limitations of **claim 7** as described above, but does adequately not teach a grammar object model configured to represent a grammar to be used in recognizing speech.

Lewin teaches a grammar object model configured to represent a grammar in use for speech recognition (Col. 3, lines 63-64; col. 6, lines 1-3; col. 6, lines 33-35).

The references are combinable because each is directed to a speech processing system that features a plurality of operations.

Fujimori provides motivation to combine in disclosing the utility of the distributed object model in a speech system for the purpose of reducing total cost of the system and ensuring the same feeling of manipulation between different devices by the user by implementing a universal access technique (Page 3, paragraph 0032).

Lewin provides further motivation in disclosing the utility of separating general and application logic of the system in order to maintain consistent and transparent natural language models when the user interfaces with different operations of the system (Col. 2, lines 44-62; Col. 3, lines 42-45).

Therefore, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention to modify the teachings of Yuen in view of Fujimori using the teachings of Lewin in order to implement a speech processing system that made use of the distributed object model in order to ensure the same feeling manipulation between different devices and to additionally utilize a separation in general and application logic in the system to maintain consistent and transparent natural language models between operations of the system.

Regarding **claim 9**, Yuen in view of Fujimori does not disclose, but Lewin further discloses a recognition result object (Col. 6, lines 5-10).

This limitation is directly related to the teaching of Lewin regarding the separation of general logic and application logic as applied above to **claim 8**, and therefore the reasons for combination are the same.

Regarding **claim 10**, Yuen in view of Fujimori does not disclose, but Lewin further discloses an event handler that reacts to events generated by the recognition result object (Col. 5, lines 23-26; col. 5, lines 39-44).

This limitation is directly related to the teaching of Lewin regarding the separation of general logic and application logic as applied above to **claim 8**, and therefore the reasons for combination are the same.

Regarding **claim 11**, Yuen in view of Fujimori does not disclose, but Lewin discloses control of object models controlled by an outside application (Col. 5, lines 62 – Col. 6, line 3).

This limitation is directly related to the teaching of Lewin regarding the separation of general logic and application logic as applied above to **claim 8**, and therefore the reasons for combination are the same.

Regarding **claim 12**, Yuen in view of Fujimori does not disclose, but Lewin discloses that the recognition result object is accessed by a domain that can include multiple processes (Col. 5, lines 45-46).

This limitation is directly related to the teaching of Lewin regarding the separation of general logic and application logic as applied above to **claim 8**, and therefore the reasons for combination are the same.

Regarding **claim 13**, Yuen further discloses the use of XML-based grammar objects (Page 4, paragraph 0055; page 8, paragraph 0106; page 8, paragraph 0120).

Regarding **claim 14**, Yuen further discloses a dictation grammar object (Page 8, paragraphs 0106-0110).

Regarding **claim 15**, Yuen further discloses a dynamic grammar object for dynamically generating a grammar at runtime (Pages 3-4, paragraph 0047; page 4, paragraphs 0054-0056).

Regarding **claim 16**, Yuen further discloses that grammar that is represented by a grammar object has associated semantic properties (Page 4, paragraph 0050; page 6, paragraph 0080). Lewin additionally discloses that a grammar object includes associated semantic properties (Col. 3, lines 43-46; col. 5, lines 23-26; col. 6, lines 33-49).

Regarding **claim 17**, Yuen in view of Fujimori does not disclose, but Lewin discloses the emission of associated semantic properties based on one of a plurality of mechanisms (Col. 6, lines 25-49).

This limitation is directly related to the teaching of Lewin regarding the separation of general logic and application logic as applied above to **claim 8**, and therefore the reasons for combination are the same.

Regarding **claim 18**, Yuen in view of Fujimori does not disclose, but Lewin further discloses that semantic properties are emitted in a consistent way regardless of the mechanism used (Col. 6, lines 25-30).

This limitation is directly related to the teaching of Lewin regarding the separation of general logic and application logic as applied above to **claim 8**, and therefore the reasons for combination are the same.

12. **Claims 21-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Fujimori and in further view of Sakai (US Patent Application Publication 2002/0055843), cited in the previous Office Action.

Regarding **claim 21**, Yuen in view of Fujimori teaches all limitations of **claim 19** as applied above, but does not teach the specification of a speech synthesizer based upon voice characteristics.

Sakai discloses a user-adjustable set of voice parameters that control the selection from a set of voice synthesizers (Page 1, paragraph 0009; page 4, paragraph 0050; page 4, paragraphs 0053-0055).

Fujimori provides motivation to combine in disclosing the utility of the distributed object model in a speech system for the purpose of reducing total cost of the system and ensuring the same feeling of manipulation between different devices by the user by implementing a universal access technique (Page 3, paragraph 0032).

Sakai further provides motivation to combine in disclosing a voice synthesis system that is consonant to the tastes of the end-user for the purpose of increased system customization by the end user (Page 1, paragraph 0007).

Therefore, the examiner contends it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuen in view of Fujimori with the teachings of Sakai in order to create a system of voice data transfer over a network using the distributed object model that also features voice synthesis that is adjustable according to the preferences of the end-user for the purposes of improving user customization of the system.

Regarding **claim 22**, Yuen in view of Fujimori does not disclose, but Sakai further discloses that voice model attributes represent attributes of the synthesized voice (Fig. 6, items 60-62; page 4, paragraph 0050; page 4, paragraph 0053).

As this is a teaching of Sakai that is directly related to the limitation of **claim 21** as taught by Sakai, the motivation to combine is the same as applied above to **claim 21**.

Regarding **claim 23**, Yuen in view of Fujimori does not disclose, but Sakai further discloses a synthesis event handler configured to handle voice events (Page 4, paragraph 0061; page 5, paragraphs 0063-0066).

As this is a teaching of Sakai that is directly related to the limitation of **claim 21** as taught by Sakai, the motivation to combine is the same as applied above to **claim 21**.

13. **Claims 24-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of Fujimori and in further view of Beutnagel (US Patent 6,078,885), cited in the previous Office Action.

Regarding **claim 24**, Yuen in view of Fujimori teaches all limitations of **claim 1** as applied above, but does not specify a plurality of interdependent grammars.

Beutnagel specifies a plurality of grammars wherein the rules of each grammar refer to rules in the other grammar (Col. 4, lines 19-21; col. 4, lines 27-31; col. 5, lines 45-56; col. 8, lines 6-13).

Fujimori provides motivation to combine in disclosing the utility of the distributed object model in a speech system for the purpose of reducing total cost of the system and ensuring the same feeling of manipulation between different devices by the user by implementing a universal access technique (Page 3, paragraph 0032).

Beutnagel provides motivation to combine in disclosing the need for customization of phonetic dictionaries of a speech synthesizer based upon geographical dialects (Col. 1, lines 23-26).

Therefore, the examiner contends that it would have been obvious for one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuen in view of Fujimori with the teachings of Beutnagel in order to create a system of voice data transfer over a network using voice synthesis that is adjustable to match the regional dialects of an end-user and additionally uses the distributed object model in order to improve user customization of the system.

Regarding **claim 25**, Beutnagel further discloses a grammar maintenance component that updates a grammar based upon a change in the rules of another grammar (Fig. 1, item 120; fig. 2; col. 5, lines 45-46; col. 7, line 67 – col. 8, line 5).

As this is a teaching of Beutnagel that is directly related to the limitation of **claim 24** as taught by Beutnagel, the motivation to combine is the same as applied above to **claim 24**.

14. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimori in view of Yuen.

Regarding **claim 30**, Fujimori discloses all limitations of **claim 26** as applied above, but discloses no limitations of **claim 30**.

Yuen additionally discloses a dynamic grammar object with exposed members to implement a dynamic grammar (Page 3-4, paragraph 0047; page 4, paragraph 0054-

0056). It is noted that Yuen discloses the term "dialog" to specifically include object models relating to speech applications (Page 4, paragraph 0050).

The two references are combinable because each is directed to a managed code layer that is directed to speech processing. Yuen provides motivation in disclosing the utility of a software implementation for the purpose of implementing a voice application development server across a remote network (Page 3, paragraph 0047).

Therefore, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Fujimori using the teachings of Yuen in order to implement a speech processing system that utilizes a software implementation for the purpose of implementing a distributed object model of the system across a remote network.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Gharavy (US Patent Application Publication 2003/0074181) teaches a system that utilizes XML in order to create document definitions in a given language.
- Da Palma (US Patent Application Publication 2005/0135572) teaches a method and procedure for compiling VoiceXML documents in a VoiceXML interpreter.

- Anderson (US Patent Application Publication 2005/0102048) teaches a system and method for improving signal-to-noise ratio in audio applications in a computer network environment.

16. Please note that though the examiner providing signatory authority for this action has changed, the examination has been performed by the same examiner throughout prosecution.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Kovacek whose telephone number is (571) 270-3135. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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SUPERVISORY PATENT EXAMINER
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DMK 01/02/2008